

Neurons in visual cortex areas V1 and V2 are selective to the shape of stimulus. Almost all present theories and models assume that variability to the shape of stimuli to which the neurons are selective is very low - preferred shapes are typically only bars and edges. However recent study (Hegd  and Van Essen) showed that is not true { single neurons prefer wide range of shapes. This work replicates the study in current computational models of cortical areas V1 and V2 (for example LISSOM) and compares results with experimental data. It shows that examined models develop neurons preferring these complex shapes rarely or just for a part of stimuli set.